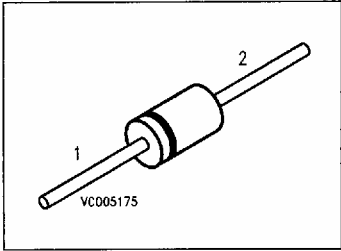



Sillcon Variable Capacitance Diodes

BB 609 A
BB 609 B

- Especially for tuning of extended frequency bands in VHF and CATV tuners
- Not for new design



Type	Marking	Ordering Code	Pin Configuration	Package ¹⁾
BB 609 A	white	Q62702-B196		DO-35 DHD
BB 609 B		Q62702-B197		

Maximum Ratings

Parameter	Symbol	Values	Unit
Peak reverse voltage	V_{RM}	30	V
Forward current, $T_A \leq 60\text{ }^{\circ}\text{C}$	I_F	20	mA
Operating temperature range	T_{op}	- 55 ... + 100	$^{\circ}\text{C}$
Storage temperature range	T_{sig}	- 55 ... + 150	

Electrical Characteristics
at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current $V_R = 30\text{ V}$ $V_R = 30\text{ V}, T_A = 60\text{ }^{\circ}\text{C}$	I_R	— —	— —	20 200	nA
Diode capacitance, $f = 1\text{ MHz}$ BB 609 A: $V_R = 1\text{ V}$ $V_R = 28\text{ V}$ BB 609 B: $V_R = 1\text{ V}$ $V_R = 28\text{ V}$	C_T	32.5 2.5 33.5 2.8	— — — —	— 3 — 3.2	pF
Capacitance ratio $V_R = 1\text{ V}, 28\text{ V}; f = 1\text{ MHz}$	$\frac{C_{T1}}{C_{T28}}$	12	—	15	—
Capacitance matching $V_R = 1\text{ V} \dots 28\text{ V}, f = 1\text{ MHz}$	$\frac{\Delta C_T}{C_T}$	—	—	2.5	%
Series resistance $C_T = 12\text{ pF}, f = 100\text{ MHz}$	r_s	—	0.7	1	Ω
Series inductance	L_s	—	3	—	nH

Diode capacitance $C_T = f(V_R)$
 $f = 1\text{ MHz}$

